

Claims

1. A method for removing a film deposited inside a chamber which can be exhausted and/or on a member placed in said chamber characterized in that after said chamber is exhausted, a heating element, at least the surface of which is composed of platinum, disposed in said vacuum chamber, is heated at a prescribed temperature and a cleaning gas which is decomposed and/or activated by said heating element to generate an activated species that converts said film into gaseous substance is introduced into said chamber.
2. The method according to claim 1, wherein said chamber is of a CVD apparatus which decomposes and/or activates a material gas by said heating element and deposits a film containing at least one element of said material gas on a substrate.
3. The method according to claim 1, wherein at least a part of the surface of the inner structure of said chamber is covered with platinum.
4. The method according to claim 1, wherein at least a part of the surface of the inner structure of said chamber is covered with platinum.
5. The method according to claim 1, wherein said cleaning gas is a gas containing at least one of fluorine (F_2), chlorine (Cl_2), nitrogen trifluoride (NF_3), carbon tetrafluoride (CF_4), hexafluoroethane (C_2F_6), octafluoropropane (C_3F_8), carbon tetrachloride (CCl_4), pentafluorochloroethane (C_2ClF_5), trifluorochlorine (ClF_3), trifluorochloromethane ($CClF_3$), and sulfur hexafluoride (SF_6).
6. The method according to claim 2, wherein said cleaning gas is a gas containing at least one of fluorine (F_2), chlorine (Cl_2), nitrogen trifluoride (NF_3), carbon tetrafluoride (CF_4), hexafluoroethane (C_2F_6), octafluoropropane (C_3F_8), carbon tetrachloride (CCl_4), pentafluorochloroethane (C_2ClF_5), trifluorochlorine (ClF_3), trifluorochloromethane ($CClF_3$), and sulfur hexafluoride (SF_6).
7. A CVD apparatus using heating element for forming a film containing at least one element of a material gas on a substrate, comprising a process chamber

which can be exhausted, an inlet of said material gas, and a heating element able to be set at a prescribed temperature disposed in said chamber, said material gas decomposed and/or activated by said heating element,

wherein at least the surface of said heating element is composed of platinum and a gas supply system of a cleaning gas which is decomposed and/or activated by said heating element to generate an activated species which converts a film deposited inside said chamber to gaseous substance, is provided so as to remove said deposited film without exposing the inside of said chamber to the atmosphere.

8. The CVD apparatus using heating element according to claim 7, wherein at least a part of the surface of the inner structure of said chamber is covered with platinum.

9. The CVD apparatus using heating element according to claim 7, wherein an electrode for plasma generation is disposed in said chamber.

10. The CVD apparatus using heating element according to claim 8, wherein an electrode for plasma generation is disposed in said chamber.

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